CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

May 15, 2001

Tim Rossknecht
Project Director
FPL Energy, Inc.
700 Universe Boulevard
Juno Beach, FL 33408-2683

Dear Mr. Rossknecht,

RIO LINDA/ELVERTA POWER PROJECT (RLEPP) DATA REQUESTS

Pursuant to Title 20, California Code of Regulations, section 1716, the California Energy Commission staff requests the information specified in the enclosed data requests. The information requested is necessary to: 1) more fully understand the project, 2) assess whether the facility will be constructed and operated in compliance with applicable regulations, 3) assess whether the project will result in significant environmental impacts, 4) assess whether the facilities will be constructed and operated in a safe, efficient and reliable manner, and 5) assess potential mitigation measures.

This first set of data requests (1-91) is being made in the areas of biological resources, cultural resources, geological resources, hazardous materials management, land use, noise, power plant reliability, traffic & transportation, visual resources, and water and soil. Written responses to the enclosed data requests are due to the Energy Commission staff on or before June 15, 2001, or at such later date as may be mutually agreed.

If you are unable to provide the information requested, need additional time, or object to providing the requested information, you must send a written notice to both Commissioner Arthur Rosenfeld, Presiding Member of the Committee for the Rio Linda/Elverta Power Project proceeding, and to me, within 10 days of receipt of this notice. The notification must contain the reasons for not providing the information, the need for additional time and the grounds for any objections (see Title 20, California Code of Regulations section 1716 (f)). Staff strongly requests that responses be sent together rather than fragmented.

If you have any questions regarding the enclosed data requests, please contact me at (916) 653-1227 or e-mail lshaw@energy.state.ca.us.

Sincerely,

Lance Shaw
Siting Project Manager

Enclosure

cc: POS

Technical Area: Biological Resources
Author: Rick York

BACKGROUND

With staff's knowledge, the applicant provided, in the Rio Linda/Elverta Power Project AFC, biological resource field survey information for the project site and linear facilities that was generated for the Sacramento Ethanol and Power Cogeneration Project (SEPCO) Project (92-AFC-2) in the early 1990s. The two projects share the same proposed power plant site. During pre-filing meetings, staff expressed concern that current field survey information will be needed to complete staff's biological resource analysis. To address this concern, the applicant agreed to complete spring 2001 biological resources field surveys and provide the survey results to the Energy Commission as soon as the field surveys are completed.

DATA REQUEST

1. Please provide complete field survey information (including updated project site and all linear facilities/sensitive species maps), and a description of how all the surveys were completed, for the spring 2001 biological resources surveys of the proposed Rio Linda/Elverta Power Project. (This includes the project site and all off-site project activities.)
2. Please combine the spring 2001 survey information with the biological resource information and maps already provided (as part of the March 2001 Data Adequacy Supplement) for the proposed cooling water pipeline routes.

Technical Area: Cultural Resources
Author: Gary Reinoehl and Roger Mason

BACKGROUND

It is unclear whether the route of the new access road to be built from Elverta Road to the power plant site has been surveyed. It is also unclear whether all of the route of the new water pipeline referred to on page 3-28 of the AFC has been surveyed. Additional information is needed to complete the staff analysis.

DATA REQUEST

3. Please provide a map (1:24000) showing the relationship of the new access road route to the natural gas pipeline route. If these two routes are not the same, please provide a cultural resource survey report for the unsurveyed portions of the access road route. If the two routes are the same, please state so.
4. Please provide a map (1:24000) showing the relationship of the new water pipeline route to the area surveyed for the power plant site. If the water pipeline route extends outside the power plant survey area, please provide a cultural resources survey report for the unsurveyed portions of the water pipeline route. If the two routes are the same, please state so.
5. For all cultural resources identified please provide copies of the completed DPR 523 forms.
6. For any cultural resources that can not be avoided, please provide a discussion of the significance of the resources under CEQA Guidelines (Cal. Code Regs., Title 14, Section 15064.5, (a), (3), (A)(B)(C) & (D)) and provide staff with a copy of the assessment and the specialist's conclusions regarding significance.

BACKGROUND

In the discussion of the results of the architectural reconnaissance on page 5.16-9 of the AFC, it is concluded that the power plant site cannot be seen from the Charles Seidel home and the house on Straugh Road (no house number) and that, therefore, there would be no effects on the integrity of setting for these properties, even if they were found to be eligible for the California Register of Historical Resources (CRHR). It is also concluded that, although the power plant would become a significant part of the viewshed from the John Risse home (7424 6th Street), the house lacks architectural integrity and is not significant (eligible for the CRHR). Staff needs additional information to verify these conclusions.

DATA REQUEST

7. Please provide photographs of the views toward the power plant site from the Charles Seidel home and the house on Straugh Road. Also please provide photographs of these two houses and their setting.
8. Please provide photographs of the John Risse home that provide enough detail to illustrate its lack of architectural integrity. Also please provide photographs of the views toward the power plant site from the John Risse home.

BACKGROUND

The AFC states on page 5.16-13 that CA-SAC-488H is a historic period archaeological site located where a structure is shown on a 1937 map and that the site may be impacted by trenching for the natural gas pipeline or by the bore pit and staging for the bore under the Sacramento River. It is also concluded in the AFC that CA-SAC-488H is not significant as an archaeological site (not eligible under California Register Criterion D) because "it lacks domestic refuse or any indication of a refuse dumping area on site that could be a source of artifacts for analysis." Staff needs additional information to verify these conclusions.

DATA REQUEST

9. Please provide a discussion of the steps taken to verify that no subsurface domestic refuse deposits are present at the site.

10. Please identify the presence or absence of subsurface deposits and complete the evaluation efforts under CEQA Guidelines (Cal. Code Regs., tit. 14, Section 15064.5, (a), (3), (A)(B)(C) & (D)).

BACKGROUND

The AFC states on page 5.16-8 that approximately 4 miles of the natural gas pipeline route could not be surveyed because the landowner denied access. Staff needs additional information to determine whether the property can not be surveyed at this time.

DATA REQUEST

11. Please provide a cultural resources survey of this portion of the natural gas pipeline route. For all cultural resources identified please provide copies of the completed DPR 523 forms. For any cultural resources that can not be avoided, please provide a discussion of the significance of the resources under CEQA Guidelines (Cal. Code Regs., tit. 14 Section 15064.5, (a), (3), (A)(B)(C) & (D)) and provide staff with a copy of the assessment and the specialist's conclusions regarding significance.

12. If access to the property is still denied, please indicate the steps you are taking to gain access and an anticipated date that access will be granted and the surveys completed.

BACKGROUND

The AFC states on page 5.16-14 that the Hedge-Proctor Transmission Upgrade will not affect any cultural resources. Staff needs additional information to determine whether all potential impacts have been considered.

DATA REQUEST

13. Please provide maps (1:24000) showing all cultural resources in relation to potential impacts that could result from the transmission line upgrade, including new tower locations, areas where transmission lines will be pulled from vehicles,

staging areas, and construction access roads. Please identify potential impacts to cultural resources and the efforts that will be taken to ensure that the resources are avoided.

BACKGROUND

The discussion of cumulative impacts in the AFC does not provide any information on other projects in the area that could impact cultural resources. The discussion of cumulative impacts should consider such other projects. Additional information is needed to complete the staff analysis.

DATA REQUEST

14. Please provide a discussion of other projects within a one mile radius of the Rio Linda Power Plant project that will involve ground disturbance and have the potential to impact cultural resources.

Technical Area: Geology
Author: Robert Anderson

BACKGROUND

On March 2, 2001, the California Energy Commission received a letter (hard copy attached) from the California Division of Mines and Geology (CDMG) presenting its comments on the proposed project's presentation of engineering geology and seismology information in the Rio Linda/Elverta Power Project Application for Certification (AFC). The letter from the CDMG pointed out that the GeoCon report included in Appendix "G" of the AFC is out of date. The GeoCon report (page 23) states that the report was valid when it was finalized (June 1992) and that the findings and recommendations should **not be relied upon** after a period of three (3) years. Furthermore, the project itself has changed from an ethanol production facility to a 560MW combined cycle natural gas-fired power plant. The GeoCon report from 1992, while a source of some background information, is not considered valid because more than three years have elapsed since it was prepared and the project has changed. For example since the GeoCon report was produced, the protocol for performing a liquefaction hazards analysis has been updated. The liquefaction potential discussion in the GeoCon report is not appropriate or adequate with respect to current liquefaction analysis.

DATA REQUEST

15. Please provide an updated Geologic Hazards and Resources section of the AFC to address each of the CDMG's comments presented in the CDMG's letter addressed to Mr. Lance Shaw of the CEC dated March 2, 2001.

BACKGROUND

The Engineering Geologic Report required under the 1997 edition of the Uniform Building Code (UBC) section 3309.4 is to be prepared for the project prior to the submittal of the grading plan to the Chief Building Official delegate. Along with the grading plan submittal, the updated site specific liquefaction analysis is required under 1804.5 since the project site may be in an area susceptible to liquefaction.

DATA REQUEST

16. Please provide The required Current Engineering Geological Report pursuant to the codes referenced above.

Technical Area: Hazardous Materials Management
Author: Alvin Greenberg, Ph.D.
Technical Senior: Rick Tyler

BACKGROUND

Additional information is needed on the identity and toxicity of hazardous materials proposed for use at the Rio Linda Rio Linda / Elverta Power Project. To assess the potential for any potential impacts associated with accidental hazardous materials releases, it is necessary to know the specific identity and quantity of each chemical to be used at the facility.

It is also necessary to conduct site-specific modeling of down wind concentrations of these chemicals should an accidental release occur. The applicant must conduct the required analysis because it incorporates information regarding specific design elements of the facility.

DATA REQUESTS

17. Table 5.12-1 indicates the use of undefined “Boiler Water Treatment Chemicals”. Please provide a description of the specific chemicals to be used and the quantity of each proposed to be stored on site.

18. Please provide accidental release modeling as described in Section 5.12.2.2 of the Application for Certification.

Technical Area: Land Use
Author: Mark R. Hamblin

BACKGROUND

On page 3-1 of the AFC, under section 3.2 Location of Facilities it states that the proposed project is to be located on four parcels identified as Assessor's Parcel Numbers 202-000-030, 031, 032, and 033 totaling 90 acres.

Assessor's parcels are not legal land division parcels. Assessor's parcels are generated by a County Assessor's Office as a means of placing a value on property or portion thereof for the purpose of property taxation in accordance to the California Revenue and Taxation Code. The County Assessor does not divide or create parcels of land in conducting this process. The assignment of an Assessor's Parcel Number to a property provides a convenient and quick location reference for the County Assessor to identify a property on the property assessment roll within a County. Legal land division parcels are established in accordance to the procedures and the requirements set forth in the State Subdivision Map Act (Government Code section 66410 – 66499.58).

The status and number of legal parcels of record for this project is unknown based on the current information provided in the AFC?

DATA REQUEST

19.

a. Please describe the legal status of the land on which the project is to be built.

b. Please explain whether the applicant is going to be required to file a parcel map with the County of Sacramento to create the parcel(s).

c. If not, explain the land division procedure used to create the parcel(s) totaling 90 acres.

d. Does the applicant have four legal parcels or some other number of parcels?

e. Provide a copy of the recorded final map, lot line adjustment map, or Certificate of Compliance for the property (ies).

20. The power generation facility is to be contained on a 55 acre portion of the 90 acre property. Is the proposed power plant to be constructed on a single legal parcel of land?

BACKGROUND

The County of Sacramento's zone designation for the property (M-2, Heavy Industrial and M-2 (F) Heavy Industrial-Flood Combining) does not expressly state that natural gas power generation facilities are permitted within these zones. As stated in the AFC, the Planning Director for Sacramento County made an administrative determination that the proposed use is appropriate due to its similarity to uses presented in the County's M-2 Zone which includes public utility and public service facility as an allowed use (AFC page 5.7-14 -15).

DATA REQUEST

21. Please provide a copy of the Planning Director's written administrative determination stating that the use of subject property as a power generation facility is consistent within the County's general plan policies and zoning.

BACKGROUND

As stated in the AFC (AFC, page 5.7-15) the County of Sacramento has a maximum height requirement for structures of 100 feet. Additionally, the AFC states that a height may be increased to 150 feet when the Planning Commission or the Board of Supervisors reviews development plans. The exhaust stacks for the facility are going to be 150 feet. Therefore, a height review action by the County would be required.

DATA REQUEST

22. Please provide information regarding the status of a development review by the County of Sacramento, a copy of its "findings" and any concerns or suggested conditions of approval that most likely would be attached to the development review had it been processed by the County.

BACKGROUND

A minor conditional use permit is required in Yolo County for the installation of transmission pipelines within the County's A-P and A-1 Zone designations.

DATA REQUEST

23.

a. Please provide information regarding the status of the project's consistency review by the County of Yolo for consistency with its policies and zone regulations.

b. Provide a copy of the "findings" for the granting of a minor use permit and any conditions of approval that most likely would be attached to the minor use permit had it been processed by the County.

BACKGROUND

The AFC (page 5.7-14) identifies that no discretionary project(s) have been approved within the past 18 months in the vicinity of the proposed project. The last discretionary project to have been approved within the area involves the Sacramento Ethanol and Power Cogeneration Project (SEPCO) power plant and Zoning Agreement No. 940749, dated February 1, 1995. As this is the only discretionary project noted it is not clear to staff if this project represents the last and most recent discretionary action to occur within the vicinity of the current project.

DATA REQUEST

24. Please clarify if the SEPCO power plant is the most recent discretionary action to have occurred. Have any other discretionary actions occurred within a mile radius of the perimeter of the project during the past 18 months?

25. Discuss any proposed planned land uses changes and future development projects within a 1 mile radius of the perimeter of the subject property.

BACKGROUND

AFC page 5.7-14 – 15 states that the County has determined that the proposed project will be consistent with a previous zoning agreement (Zoning Agreement No. 940749) provided that 5 conditions are applied to the project. Condition 5 pertains to the dedication of a multi-use trail easement to the Rio Linda/Elverta Parks District.

DATA REQUEST

26. Show the location of the multi-use trail easement to be granted to the Rio Linda/Elverta Parks District.

BACKGROUND

AFC page 1-3, 5.7-1 and Figure 5.7-1D, etc. indicate that the proposed 20 mile natural gas pipeline will connect into an existing pipeline near the Town of Yolo in the County of Yolo. The AFC states that the applicant proposes to tie into PG&E's main north/south pipeline. However, the specific location of PG&E's main north/south is not shown on a map in the AFC.

DATA REQUEST

27. Show on a separate map or Figure 5.7-1D the specific location of the PG&E main north/south natural gas pipeline and the location of the pipeline interconnection to serve the Rio Linda/Elverta power project.

DATA REQUEST

28. Show on the connection location on a current map, and provide a letter from PG&E confirming that it will serve this project.

Technical Area: Noise
Author: Jim Buntin

BACKGROUND

The Energy Commission typically assesses compliance with the 5 dB noise level increase criterion by comparison of the steady state noise level due to the power plant to the average (or typical) L_{90} values obtained during nighttime hours, as noted by the applicant. Sacramento County applies an absolute criterion in terms of the median (L_{50}) project noise level, and the ambient noise level may be considered as a factor in adjusting the noise standard. The applicant has summarized the 24-hour cumulative noise level values collected in the long-term noise measurement periods in Table 5.9-1, and in the text of the AFC. The applicant has also provided graphs of the hourly data. However, the hourly noise level values were not provided.

DATA REQUEST

29. Please provide the hourly L_{eq}, L_{50}, and L_{90} values for noise measurement sites 1 through 4 in tabular format.

Technical Area: Reliability
Author: Arden Walters

BACKGROUND

The AFC for the Rio Linda/Elverta Power Plant Project (RLEPP) identifies the Western Area Power Administration (Western) as the transmission system that will take the power generated by the RLEPP. Western has indicated that the RLEPP's location will provide a number of special benefits to its transmission system, including reactive power support. However, the plant's future capacity factor is described as being dependent on market prices because it will to sell in the California Power Exchange. The plant's ancillary services (reactive power, regulation, and operating reserves, but not black start capability) will be sold to the California Independent System Operator. There is no discussion in the AFC if future power purchase arrangements might contain additional incentives in the form of rewards and penalties for RLEPP's operating availability and reliability. Such available/reliability incentives have commonly been included in Independent Power Producer (IPP) purchase contracts in various regions of the U.S.

DATA REQUEST

30. Please indicate if any special incentives for high power plant availability and reliability might be included in future RLEPP purchase arrangements.

BACKGROUND

Natural gas fuel for the Rio Linda/Elverta Power Plant Project (RLEPP) will be provided by PG&E through a new 16 to 20-inch 20-mile pipeline extension from PG&E's Line 172 near Yolo. The RLEPP AFC indicates that a PG&E Standard Facility Design 16 to 20-inch diameter transmission main can supply adequate gas volumes to the project site based an analysis of PG&E's gas transmission system under a variety of operating conditions. It is not clear if this gas transmission system analysis included future improvements to the PG&E system, e.g. added seasonal storage capacity, or what the probability of supply interruption by PG&E would be over the 30-year life of the RLEPP project.

DATA REQUEST

31. Please identify what types of major improvements are planned for the PG&E gas transmission system, if any, that will be needed to provide a reliable supply of natural gas over the 30-year life of the project.

32. Please indicate if future gas supply interruptions of significant frequency and duration can be expected over the 30-year life of the project.

33. Does the filing for Chapter 11 bankruptcy protection affect PG&E's ability to supply gas for this project?

BACKGROUND

Major equipment, including the two gas turbines and the single steam turbine will be enclosed inside a turbine hall. Repairs and maintenance may require heavy lifting gear.

Such lifting gear could be permanently included in the turbine hall or could be portable cranes, if there is adequate access to the equipment in the turbine hall.

DATA REQUEST

34. Please indicate how the RLEPP will provide for the lifting and moving of heavy equipment enclosed within the turbine hall, especially the turbine rotors.

Technical Area: Traffic and Transportation
Author: James Fore

BACKGROUND

The AFC discusses the linear facilities (natural gas fuel line and a water supply line), but no information is given on the construction schedule and how the workforce transportation and parking will be handled.

DATA REQUEST

35. Please provide the following information for the linears:
    a. The construction schedule associated with each linear.
    b. A monthly breakdown of the construction workforce schedule for each linear.
    c. A monthly schedule indicating truck deliveries for equipment, materials and supplies for linear construction.
    d. The areas that will be used in linear construction activities for workforce parking and the laydown of equipment and supplies.

BACKGROUND

The pipeline construction activities for the natural gas fuel line and the water supply line will result in work being done in roadway rights-of-way. The proposed routes are on narrow rural roads with poor lane marking, small or no shoulders and in some cases poor driving visibility. In the community of Rio Linda, the water pipeline will be located along U and M Streets that have a number of residents and other structures that require traffic access.

DATA REQUEST

36. Please identify the impact that pipeline construction may have on local residents, business and on street parking and the mitigation measures planned to minimize the impact
37. Please indicate the types of traffic control programs that will be used to ensure safe roadway conditions, (such as lane marking, construction notices, roadway signage, detours, flagperson, etc.).
38. Please indicate what policies will be in place to ensure workers will park in designated areas. Please indicate if transportation will be available from a central parking area to and from the work site for the linears.

BACKGROUND

For both construction and operation, traffic approaching the Rio Linda/Elverta Power Plant from Highway 99 on either Elverta or Elkhorn Roads will cross the Union Pacific rail lines. The increase in traffic volume could result in unsafe conditions at the rail crossings.

DATA REQUEST

39. Please indicate the level of rail service associated with the Union Pacific tracks.

40. Please indicate what mitigation measures the project plans, to ensure that all traffic (workers, hazardous material deliveries and removal, and other truck traffic) will not result in an increase for potential traffic accidents.

Technical Area: Visual Resources
Author: William Walters, Eric Knight, Joe Donaldson

BACKGROUND

The visible water vapor plume discussion provided in the Visual Resources section of the AFC (Section 5.10.2.4.8) does not provide detailed information regarding the frequency, duration and size characteristics of the cooling tower water vapor plumes. However, the AFC does note that the Applicant performed a Seasonal Annual Cooling Tower Impact (SACTI) modeling analysis. Staff will conduct a cooling tower plume modeling analysis to confirm the applicant's SACTI analysis results and to determine whether potential visual impacts from the cooling tower plume exist. Staff will require additional project and site data to complete this analysis.

DATA REQUEST

41. Please provide electronic copies of the SACTI input and output files, a tabular summary of the plume dimension results, and the SACTI executable files for review. Please indicate if any modifications were made to the SACTI executable files and describe those modifications, if any were made. Please identify if multiple SACTI modeling runs were performed for day/night, fog/no fog, etc. ambient conditions, and if so provide all cases which were run in the tabular results summary.

42. Please provide the meteorological data files used in the SACTI analysis, including a short description of the meteorological years provided and the meteorological station location. Staff is in the process of obtaining a six-year (1990-1995) Sacramento meteorological data set from National Climatic Date Center (NCDC). Staff will include both the Applicant's data set and the NCDC data set in their analysis, if they are different.

43. Please provide general cooling tower design data including tower physical parameters (length, width, height, number of cells, cell exhaust diameter, etc.), heat rejection rate, exhaust rate and liquid/gas ratio. The cooling tower exhaust rate should provide a reasonable worst-case operating scenario for modeling. Please explain the plant load conditions and ambient conditions that are the basis for the worst-case cooling tower exhaust rate value.

BACKGROUND

The visible water vapor plume discussion provided in the Visual Resources section of the AFC (Section 5.10.2.4.8) does not provide information regarding the frequency, duration and size characteristics of the Heat Recovery Steam Generators (HRSG) exhaust stack water vapor plumes. Staff will conduct a plume modeling analysis to determine the HRSG exhaust stack plume frequency and size characteristics. Staff will require additional project and site data to complete this analysis.

DATA REQUEST

44. Please provide the following information regarding the HRSG exhaust parameters.

    a. Stack Exhaust Temperature;

    b. Moisture Content (% by Weight);

    c. Mass Flow, and;

    d. Average Molecular Weight.

    The Applicant may provide these exhaust parameters, in tabular form, for the range of ambient conditions (i.e. ambient temperature and relative humidity) that can be reasonably expected occur at the project site location; or if the Applicant desires they may provide a worst case exhaust condition that staff will model throughout the year. Please provide a short discussion regarding the operating assumptions and basis for the HSRG exhaust parameter data that is provided, including power augmentation (i.e. inlet air foggers) and duct burner operating status. Also, please indicate any relationship between the use of duct burners and/or power augmentation with ambient conditions (i.e. note temperature/relative humidity conditions when either will not be operated).

BACKGROUND

Some features discussed in the text are not identified on Figure 5.10-1. Other features discussed in the text are labeled on the figure, but are difficult to read. The viewshed is not shown in its entirety for the 3-mile radius described in the text. Residences with potential views of the site are not shown on the map. The shaded area labeled on the map is not clearly shown. Staff requires that this information be clearly depicted on a revised map to assist in performing Staff's visual analysis.

DATA REQUEST

45. Please provide a revised Figure 5.10-1 that clearly shows and labels the roads, canals, railroad line, utility corridors, Elverta Substation, Western Area Power Administration (Western) maintenance buildings, equestrian facility and associated trails, and other important features in the area that are discussed in the text.

46. On the revised Figure 5.10-1, please show all residences within the foreground (up to ½-mile from the site) and middleground (from ½-mile to 4 miles from the site) distance zones that are within the viewshed for the project site.

47. Please provide a revised Figure 5.10-1 (or an additional figure) that clearly shows the viewshed for the project site for the foreground (up to ½-mile from the site) and middleground (from ½-mile to 4 miles from the site) distance zones. On the figure, please indicate distances from the power plant site using concentric rings at intervals of ½-mile, 1-mile, 2-miles, 3-miles, and 4-miles.

BACKGROUND

Figure 3.3-1 is a site plan for the project site that shows a switchyard near the southwest corner of the site. However, none of the visual simulations prepared for the project show the switchyard.

DATA REQUEST

48. Please revise the existing or provide new visual simulations that show the switchyard in views from Key Observation Points (KOPs) 1, 2, 3, 4, and 6. Please provide 4 sets of 11" x 17" high-resolution photocopies of each of the visual simulations at life-size scale of the proposed switchyard from these KOP locations.

BACKGROUND

Figure 3.4-2 provides a scaled west elevation of the proposed power plant. However, no similar south, north, or east elevations are provided. Staff requires these to assist in performing visual analysis.

DATA REQUEST

49. Please provide scaled north, south, and east elevations of the proposed project similar to that provided in Figure 3.4-2 for the west elevation.

BACKGROUND

Union Pacific Railroad tracks run along the west boundary of the project site. The text does not describe whether passenger trains use these tracks.

DATA REQUEST

50. Please provide information about the use of the railroad tracks by passenger trains. If passenger trains use the tracks, please provide a detailed discussion on the number of trains and passengers and other pertinent information on the visibility and views of the proposed project from the railroad line.

BACKGROUND

Figure 5.10-5b shows a visual simulation from the area of KOP 4 of only a portion of the power plant. Staff needs to see a visual simulation that shows the entire power plant, including the switchyard, in order to assist in performing Staff's visual analysis.

DATA REQUEST

51. Please provide one or more visual simulations from the area of KOP 4 that show the entire power plant, including the switchyard. Please provide 4 sets of 11" x 17" high-resolution photocopies of the visual simulation(s) at life-size scale of the proposed project from this location.

BACKGROUND

Staff will need to include all photographs, visual simulations, and maps from the visual resources section of the AFC and responses to these data requests in the PSA and FSA.

DATA REQUEST

52. Please provide electronic files of all photographs, visual simulations, and maps from the visual resources section of the AFC and the responses to these data

requests so that Staff can include these in the Preliminary Staff Assessment (PSA) and Final Staff Assessment (FSA).

BACKGROUND

The visual simulations in the AFC do not show any landscaping treatment or other elements that may help blend the power plant and its associated features with their surroundings or that may help mitigate visual impacts of the proposed project.

DATA REQUEST

53. Please provide visual simulations depicting landscaping treatment and other visual treatment that may help blend the power plant and its associated features with their surroundings or that may help mitigate visual impacts of the proposed project. Landscaping should be depicted at initial planting, at an age of approximately 5 years after installation and at maturity. Please provide 4 sets of 11" x 17" high-resolution photocopies of the visual simulations at life-size scale of the proposed project with landscaping treatment from each of the KOP locations.

BACKGROUND

The 80-foot-high screening structure labeled as the turbine hall on Figure 3.4-2 appears massive. It is not clear from the description in the AFC what the purpose of the massive screening structure is and whether the full height and mass of the structure is necessary to screen elements of the power plant.

DATA REQUEST

54. Please provide a detailed discussion of the purpose and need for the turbine hall screening structure. In particular, please describe the elements of the power plant housed under the turbine hall that may require (and those which may not require) the full height and mass of the turbine hall to be effectively screened.

BACKGROUND

The AFC states that the proposed natural gas pipeline will be buried underground and "will not be visible from publicly accessible areas." According to the AFC, the tie-in point for the proposed gas pipeline is near a rural residential area. The AFC does not clarify whether there would be any above ground features such as a gas metering station or other features at the tie-in point or at other locations along the proposed gas pipeline.

DATA REQUEST

55. Please provide a description of the location, visibility, setting, appearance, visual impacts, and any aesthetic treatment for any and all above-ground features associated with the proposed natural gas pipeline.

BACKGROUND

Figure 3.3-1 shows three construction laydown and parking areas on the project site. However, there is no description of construction-related visual impacts or mitigation measures associated with the laydown and parking areas.

DATA REQUEST

56. Please provide a description of the visibility, setting, appearance, visual impacts, and any aesthetic treatment or other mitigation measures intended to reduce visual impacts associated with the proposed construction laydown and parking areas.

57. Please describe how the construction laydown and parking areas will be treated upon completion of construction.

58. Please provide a full description of any and all other construction-related impacts associated with the project.

BACKGROUND

Figure 3.4-2 shows a turbine hall that is 80 feet in height. However, Table 5.10-2 does not identify a turbine hall or any other features 80 feet in height.

DATA REQUEST

59. Please identify the correct dimensions of the turbine hall and add this information to Table 5.10-2.

BACKGROUND

Page 5.10-12 of the AFC states that the layout of the substation is indicated in Figure 3.4-1. However, there is no substation shown on this figure. The switching station discussed on this page is also not shown.

DATA REQUEST

60. Please clarify the location for the substation referred to on page 5.10-12.

61. Please show the location and layout of the switching station, including its connection to the nearby transmission line discussed on page 5.10-12.

BACKGROUND

The Sacramento County Zoning Ordinance identifies that there must be a perimeter fence at least 6 feet high of solid wood or masonry (see page 5.10-21 of the AFC). However, an eight-foot high chain link fence with an additional two feet of barbed or razor wire around both the power plant and switching station is described on page 5.10-12 of the AFC. There is no description of how the proposed project will comply with this requirement of the zoning ordinance.

DATA REQUEST

62. Please describe how the proposed project will comply with the requirement of the Sacramento County Zoning Ordinance that specifies that there must be a perimeter fence at least 6 feet high of solid wood or masonry around the project.

BACKGROUND

The Sacramento County Zoning Ordinance identifies that there must be a minimum landscaped strip of 25 feet in width along public rights-of-way (see page 5.10-21 of the

AFC). However, the AFC does not describe how the proposed project will comply with this requirement of the zoning ordinance.

DATA REQUEST

63. Please describe how the proposed project will comply with the requirement in the Sacramento County Zoning Ordinance that specifies that there must be a minimum landscaped strip of 25 feet in width along public rights-of-way.

BACKGROUND

The AFC states that "a landscape plan will be developed" (AFC, page 5.10-13) and "the project will include the preparation and implementation of a landscape plan that will comply with the County Zoning Ordinance" (AFC, page 5.10-21). The AFC also states that "a Landscape Plan will be prepared when final construction drawings of the project are completed" (AFC, page 5.10-20). Also, the AFC identifies potentially significant visual impacts from project structures at KOPs 4, 5, and 6 that the Applicant considers mitigable with implementation of landscaping. Staff requires this detailed landscape plan as soon as possible in order to conduct its visual analysis of the proposed project and determine the project's compliance with LORS. Without this detailed landscape plan and the visual simulations showing landscaping for the project, Staff's visual analysis for the PSA may be delayed.

DATA REQUEST

64. Please provide Staff with the detailed landscape plan for the proposed project.

BACKGROUND

The AFC identifies potentially significant visual impacts from plumes at KOPs 5 and 6 but does not describe any measures (e.g., a plume abated cooling system) to reduce those impacts to less than significant levels.

DATA REQUEST

65. Please provide a detailed description of any measures intended to reduce significant impacts from visible plumes to less than significant levels for the proposed project.

BACKGROUND

The photograph of the view from KOP 5 (Figures 5.10-6a and 5.10-6b) shows an overexposed backlit sky, a brown, barren-appearing field, and fence which dominated the foreground. The photograph is of poor quality and does not accurately represent the existing visual quality and character of views from the area of this KOP. Staff needs to see a photograph of substantially higher quality to replace the existing photograph used for the visual simulation in order to assist in performing staff's visual analysis.

DATA REQUEST

66. Please provide 4 sets of 11" x 17" high-resolution color photocopies of a new photograph from the are of KOP 5 that is of high quality and accurately represents

the existing visual character and quality of views from the area. The photograph should be taken at a time of day and during weather conditions that avoid an overexposed sky and that depict the field in its current state covered with green grass. The photograph should also avoid showing the fence in a manner that dominates the view.

67. Please provide 4 sets of 11" x 17" high-resolution color photocopies of a new visual simulation at life-size scale of the proposed project from the area of KOP 5 using a new higher quality photograph as described above.

BACKGROUND

The photograph of the view from KOP 6 (Figures 5.10-7a and 5.10-7b) shows the view from the intersection of Q Street and Marysville Boulevard. The foreground of this view is cluttered with power poles, power lines, fences, a large expanse of the roadway, and a somewhat barren, weedy field and is not representative of the existing visual quality and character of views from the area of this KOP. A more representative view from this KIP area would be from the intersection of Straugh Road and Marysville Boulevard or from a residence driveway (on West 6th Street) just north of this location. Staff requests a new photograph from the KOP area that more accurately represents the existing visual character and quality of views from this area in order to assist in performing staff's visual analysis.

DATA REQUEST

68. Please provide 4 sets of 11" x 17" high-resolution color photocopies of a new photograph from the area of KOP 6 that is of high quality and accurately represents the existing visual character and quality of views from this area. The new photograph should be taken from the intersection of Straugh Road and Marysville Boulevard or from a residence driveway just north of this location. The photograph should be taken at a time of day and during weather conditions that avoid an overexposed sky and from a position that shows the field with green grass that is not cluttered with power poles, fences, or a dominant expanse of roadway.

69. Please provide 4 sets of 11" x 17" high-resolution color photocopies of a new visual simulation (to replace Figure 5.10-7b) at life-size scale of the proposed project from the area of KOP 6 using the new higher quality photograph as described above.

70. Please provide a description of the existing visual character and quality, and a detailed analysis of the visual impacts of the proposed project, from the revised location from KOP 6.

BACKGROUND

The proposed power plant would be located in an almost direct line of sight with U Street and in full view and within ¼-mile of a residence located on the south side of U Street. The proposed power plant would be a dominant element in views from these locations. Because of the high sensitivity of these views, staff requests that a new KOP (KOP 8) be established to represent views from this area.

DATA REQUEST

71. Please provide 4 sets of 11" x 17" high-resolution color photocopies of a photograph from the area of the residence located on the south side of U Street within ¼-mile of the project site. The photograph should be of high quality and accurately represent the existing visual character and quality of views from this area.

72. Please provide 4 sets of 11" 17" high-resolution color photocopies of a new visual simulation at life-size scale of the proposed power plant from the area of the residence located on the south side of U Street within ¼-mile of the project site.

73. Please provide a description of the existing visual character and quality, and a detailed analysis of the visual impacts of the proposed project, from the area of KOP 8.

Technical Area: Water and Soil Resources
Author: Lorraine White

BACKGROUND

Construction and operation of the Rio Linda/Elverta Power Project (RLEPP) may induce water and wind erosion at the power plant site and along the associated linear facilities. Stormwater runoff may also contribute to erosion and sedimentation as well as transport pollutants off-site.

DATA REQUEST

74. Please provide a draft erosion control and stormwater management plan that identifies all measures that will be implemented at various locations of the project during construction and operation of the proposed RLEPP. The draft erosion control plan shall identify all permanent and temporary measures in written form and depicted on a construction drawing(s) of appropriate scale. The purpose of the plan is to minimize the area disturbed, to protect disturbed and sensitive areas, to retain sediment on-site and to minimize off-site effects of stormwater runoff.
75. Please provide any revegetation and specific best management measures to be employed to control stormwater runoff during construction and operation at identified locations. In addition, any measures necessary to address Nationwide Permits or Streambed Alteration Agreements, as required, should be identified. Revegetation efforts should address both erosion control and habitat restoration.
76. Please specify the type of seed and fertilizer, seeding and fertilizer rate, application method, the type and size of any container plants to be used and the criteria for judging revegetation success.
77. Please identify maintenance and monitoring efforts for all erosion, stormwater runoff control and revegetation measures including measures to rectify unsuccessful revegetation efforts.

BACKGROUND

The proposed project will require an annual average water use of 2,823 Acre Feet per Year (AFY) or 1,627 Gallons Per Minute (GPM). Because of the high water demand of the proposed project, alternatives to the proposed cooling technology that would reduce water demands on the proposed source must be evaluated. In the AFC the applicant only provided a brief discussion of water supply alternatives (AFC Section 3.10.5, p. 3-76 & 77).

DATA REQUEST

78. Please provide an analysis of the cost and water use associated with the use of dry and wet/dry cooling technology for the proposed Rio Linda/Elverta Power Project. The analysis should identify, for both dry and wet/dry cooling technologies, the estimated capital and operating costs and anticipated water demand.

a. Please provide the assumptions and calculations underpinning the capital costs, including, but not limited to, discussions of whether labor and financing costs are included in the estimates, and the performance levels for the technologies specified.

b. Please provide energy balances for the combined cycles at 50%, 75%, 100% and peak loads, and 60 ^{o}F and 115 ^{o}F with duct burners on.

c. Please provide quantities of water used (assuming zero liquid discharge), and water preparation and clean-up chemicals used for the various configurations.

79. Please include a discussion of the relative environmental benefits and detriments of wet, wet/dry, and dry cooling technologies. This discussion should include evaluation of water demand, particulate matter emissions associated with the use of wet and wet/dry cooling technology, visual resources implications, and land use requirements.

a. Please quantify air emissions from the project stacks and cooling towers, for the various configurations, 1) assuming constant fuel use, efficiency and capacity losses, and increased parasitic loads, and 2) assuming maximized fuel use, efficiency and capacity losses, and increased parasitic loads.

b. Please quantify the footprints and dimensions of the cooling towers in the various configurations.

c. Please quantify occurrences and sizes of visible plumes for the various configurations.

d. Please quantify noise levels from the various configurations.

80. Please conduct a feasibility analysis of the use of the contaminated plume underlying the McClellan Air Force Base rather than uncontaminated groundwater for cooling purposes. Include in this analysis a discussion of constraints, calculations, assumptions, cost estimates and technical modifications that would be required to allow use of the contaminated groundwater at RLEPP.

BACKGROUND

When average annual and peak water consumption figures are estimated, they generally result in an under and over estimation of a project's water demand, respectively. This is because a facility does not continuously operate year round at average or peak conditions. The Water Usage Rates (AFC, Table 3.4-9) indicates that 1,627 gallons per minute (gpm) would be used on average (staff assumes based on the proposed 3.5 cycles of concentration); the peak usage of water will be 3,010.7 gpm (AFC, Table 3.4-10). The estimated average annual water use is 2,823 acre-feet per year (AFC, Table 3.4-9).

DATA REQUEST

81. Please show the calculations used to derive the water usage rates shown in Tables 3.4-9 and 3.4-10.

82. The applicant has indicated that the cooling towers will operate at 3.5/2.5 cycles of concentration (AFC Supplement, p.45. Other facilities that have employed zero discharge systems are capable of greater cycles of concentration, thus maximizing the efficiency of water use on site. Please provide an analysis and discussion of the possibilities of cycling the concentrations in the cooling towers 10, 15 and 20 times and provide recalculations of water uses for these operation conditions. Include in this discussion, an explanation of any constraints that may limit the number of cycles of concentration in the cooling towers.

83. Identify the likely number of days per year the RLEPP will operate under summer maximum conditions.

BACKGROUND

The applicant has proposed to use groundwater to supply water resources to the RLEPP project. Three wells will be constructed at a depth of approximately 510 feet with three screened sections (Response to Data Adequacy Comment #52 & 53). One of the screened sections will be in the lower portion of the Fair Oaks Formation, while the other two sections will be in the upper portion of the Mehrten Formation (Response to Data Adequacy Comment p. 35). According to the AFC supplement, the water quality of the Mehrten Formation decreases with depth Total Dissolved Solids (TDS) levels at 2000mg/l at depths ranging from 800 to 1200 (Supplement p. 33).

DATA REQUEST

84. Please provide information on the analysis conducted to come to the results provided in Response to Data Adequacy Comment #53, including assumptions, calculations and vendor performance data that verifies the limits on the zero liquid discharge system described.

85. Please provide copies of the reference document(s) for the water quality and aquifer zone estimates of the Laguna, Fair Oaks and Mehrten Formation stated on p. 33 of the Response to Data Adequacy Comments.

86. Please provide an evaluation of the potential for upwelling of brackish groundwater from the lower portions of the Mehrten Formation that could be induced by project pumping.

BACKGROUND

In their letter dated February 28, 2001, the Rio Linda/Elverta Community Water District stated that groundwater depths in neighboring wells may be affected by the operation of new wells to serve the project. The District also stated that “ongoing investigations into toxic groundwater pollution under McClellan AFB may result in future discovery that impacts from additional pumping currently identified as less-than-significant were not properly categorized.” In the AFC, the applicant claims that “groundwater quality will not be affected by the site development or operation” (AFC, p. 5.4-9) and provided estimates for the drawdown of neighboring wells resulting from the operation of the new wells.

DATA REQUEST

87. Please provide staff with the analysis conducted by the applicant to determine that groundwater pumping to serve the RLEPP would not affect the McClellan Air Force contamination plume or have an adverse affect on groundwater quality. Provide all appropriate documentation needed to evaluate the technical basis of your conclusions, including computer model programs, assumptions, copies of references, input and output files, figures, and any other appropriate documentation. Discuss how these parameters were developed, and why they were selected.

88. Please provide copies of reports on the physical and chemical characteristics of the contamination plume that were used in the modeling and or analysis.

89. Please provide staff with the analysis conducted by the applicant to estimate the drawdown in neighboring wells that would result from the operation of the new wells for the RLEPP. Provide all appropriate documentation needed to evaluate the technical basis of your conclusions, including calculations, computer model programs, assumptions, copies of references, parameters, input and output files, and figures. Discuss how these parameters were developed, and why they were selected.

90. Please provide a listing of the common parameters used in the analysis of project impacts on the McClellan Air Force contamination plume and on drawdown in wells located in the vicinity of the proposed project wells. If there are any differences in the common hydrologic parameters used in these two analyses, please explain why.

91. Please provide an analysis of the change, over the life of the project, in the quantities of project's groundwater supply that will come from aquifer storage and from induced groundwater recharge from the Sacramento River.